

QUARTERLY ACTIVITIES REPORT

Ending 31 March 2018



HIGHLIGHTS: Evaluating Paris silver project & seeking resource expansions

Paris Pre-Feasibility Study ('PFS'):

PFS studies continue on the Paris Silver Project, as follows:

- Metallurgical testwork on large samples which aims to improve the 2013 silver recoveries of 65-75%.
- Geotechnical drilling has been completed with tests proceeding on drill samples towards an indicative pit design.
- Waste rock characterisation and desktop infrastructure studies are underway.

Paris extensions exploration:

- One metre re-assaying of December 2017 drilling showed potential for zones of high grade silver at the less-drilled **northern and southern ends** of the Paris deposit.
- New drilling indicated modest additional silver resource potential in the **South East Extension** associated with zones of anomalous lead, gold, copper, cobalt and molybdenum.
- Scout Induced Polarisation ('IP') survey completed with assessment for satellite silver targets awaited.

Trojan copper-gold target:

• Drilling of large shallow IP target near Paris intersected no significant copper in the interpreted pyritic margin to the Nankivel porphyry system. A partner would be sought to test the potential for a deeper copper core.

Regional target concepts:

• Targets were advanced at Maslins IOCG copper gold, Cartarpo cobalt copper REE and Wiawera copper gold prospects.

STRATEGIC FRAMEWORK

The strategic framework for Investigator Resources ('IVR') is as follows:

- To evaluate the viability of the Paris silver project by ascertaining development pathways and sensitivities under cyclic industry conditions. The favourable silver grade, location and shallow geometry provide the basis for this evaluation.
- To use the knowledge gained in the discovery of Paris to extend the Paris resource and discover repetitions thereof.
- To seek opportunities using Company IP in new terrains and jurisdictions.



Figure 1: Location plan of Investigator tenements & projects

PARIS SILVER PROJECT - Peterlumbo Tenement (EL5368 - IVR 100%):

The project lies within the Peterlumbo tenement on the northern Eyre Peninsula of South Australia (Figure 1).

The Paris silver deposit has an estimated Indicated and Inferred JORC Mineral Resource of 9.3 million tonnes at 139g/t silver and 0.6% lead (at a 50g/t silver cut-off) (Investigator ASX Release: 19 April 2017). The deposit occupies an area of about 400m by 1,600m with a shallow flat tabular geometry that is conceptually mineable by open-pit to 160m depth below the flat surface. However, it is noted that, as with most silver deposits and unlike gold deposits, mineralogy is complex and beneficiation solutions bespoke.

Current Metallurgical Study

A phased approach has been taken to progress the Paris PFS with the primary focus on a metallurgical study. As was announced in late 2013, (Investigator ASX Release: 21 October 2013), the results of initial standard metallurgical laboratory tests for the Paris Silver Project showed encouraging metallurgical performance in laboratory trials conducive to conventional processing paths. The initial silver leach recoveries were between 65% to 75% for the samples of breccia mineralisation typical of most of the Paris deposit. The silver mineralogy was identified as fine-grained and predominantly acanthite and native silver much of which was inclusions in sulphides and quartz.

After the 2016 infill resource drilling, a geometallurgical study of the Paris deposit defined four domains (Oxide, Breccia transitional - no Mg/Ca, Breccia transitional - Mg/Ca and Dolomite) (Figure 2) in the central infill-drilled area of the deposit (Figure 3). These were used for metallurgical testing of larger and more representative samples (Investigator ASX Release: 14 November 2017).

The metallurgical study is again being undertaken by the metallurgical testing and process engineering/flowsheet Company, Core Resources ('Core') in Brisbane.



Figure 2: Paris Silver Deposit - Example Section 51360mN showing the typical distribution of the geo-metallurgical domains, drill traces with current metallurgical samples and the outline for the 2017 conceptual open-pit model

Section 51360N +/- 15m Section Window

Comminution testing by Core has shown that the Paris silver ore can be considered 'soft' and has relative low abrasive properties. This indicates potentially lower capital and power costs associated with the crushing and milling circuit (Investigator ASX Release: 14 November 2017).

Core is in the process of carrying out flotation and leaching testwork, evaluating options for improving initial silver recoveries, as well as identifying methods to recover lead/silver concentrate which had not been examined in 2013.

Other Activity

A consultant mining engineer with feasibility and operational experience in South Australia has been contracted to lead the PFS.

The engineering advice recommended further geotechnical work on the soft Paris wall rocks. A program of five large diameter core holes (Figure 3) was completed in April to provide geotechnical samples and data to enable initial estimates of open-pit wall angles and strip ratios.

Desktop studies being undertaken to progress the PFS include:

- Waste characterisation study to identify potential waste impacts on design (e.g. potential acid forming material, or non-acid forming material). This will influence tailings storage and waste dump design.
- Infrastructure components requiring design and costing, including access, process water pipeline options, camp designs etc.
- Compilation of previous data relating to heritage, environmental, hydrological, stakeholder and community impacts and any potential site impacts.

These studies should be completed by mid-2018.

Figure 3: Paris Silver Deposit - Plan of the 2017 conceptual open-pit showing the positions of the vertical drillholes with current metallurgical samples and recent geotechnical drill hole; plus the position of the section line for Figure 2



Paris Extension drilling

As previously reported (IVR ASX Announcement: 29 January 2018), the first phase of extension drilling aimed at augmenting the Paris Mineral Resource estimate was undertaken with a small reverse circulation percussion ('RCP') drill rig in December 2017.

The December program completed 25 vertical RCP holes with an average depth of 108m (minimum 60m and maximum 153m) primarily located at the under-drilled northern and southern ends of the Paris deposit. Two holes drilled into the interpreted South East Extension intersected the top of prospective breccias, but required a heavier drill rig to complete the program.

Silver intersections from 3m composites of one metre downhole drill samples for the December holes were re-assayed for the individual 1m sample intervals. The new assays showed improved silver grades, raising the potential for high grade zones at the north and south ends of the deposit. The best intersections were 5m @ 270g/t silver from 15m at the north end and 16m @ 169g/t silver at the south end of the deposit (Figure 4; IVR ASX Announcement: 26 April 2018). These compare with intersections reported for the 3m composited samples of 6m @ 97g/t Ag and 24m @ 66g/t Ag respectively.

Figure 4: Extension drilling hole locations in relation to the footprint for the reported Paris silver deposit Mineral Resource showing the section line for Figure 5.



Further extension drilling was undertaken in February 2018 using a larger RCP drill rig to complete four holes, PPRC471 to PPRC474, into the South East Extension Area. The results showed that the limits of the silver deposit have been defined in this area (Figures 4 and 5). However, the metal zonation observed added significant data which suggest deeper or lateral target potential, and further refines the geological model.

Figure 5: Long section through the South East Extension to the Paris silver deposit showing intersections and interpreted zoning.



IP Targeting for Satellite Silver Deposits

Thirteen scout IP lines were completed over prospective structural trends around Paris in February as scheduled (Figure 6). However, owing to the priority of the geotechnical drilling, interpretation and target definition have been deferred pending the availability of a preferred geophysical consultant.

Figure 6: Paris-Nankivel Plan showing positions of scout IP traverses in relation to Paris and Trojan plus interpreted prospective structures & dykes on a magnetic image



NANKIVEL PORPHYRY PROSPECT - Peterlumbo Tenement (EL5368 - IVR 100%):

As previously reported, (IVR ASX Announcement: 26 February 2018) three RCP holes were drilled in mid-February 2018 to test the Trojan IP target. All three holes, drilled between 252m and 275m downhole depths, intersected extensive iron sulphides without targeted copper sulphides being observed, and the assays verified that there were no significant copper values. The pyritic metasediment intersected in the drilling can be interpreted as the southern pyritic halo to the "Nan-kivel porphyry system". Any copper-prospective centre will be north of and significantly deeper than the recent drilling. A partner is required to pursue the Prospect further.

MASLINS IOCG TARGET (EL5705 Whittata; IVR 100%)

The Maslins group of tenements was applied for by Investigator in the vicinity of the under-explored southern extension of the Olympic Dam IOCG belt as redefined by regional "AusLAMP" magneto-telluric ('MT') surveying. Researchers had previously demonstrated an MT conductivity vector below Olympic Dam and this provides a breakthrough for mineral exploration by mapping deep metal corridors and centres. It is being rolled out across Australia by the Federal Government as the AusLAMP survey.

Investigator's tenement area contains the Maslins gravity target within the Whittata tenement (Figures 7 & 10) which is modelled as a large 6km by 1km diameter flat-lying cylindrical body of the size and density of a substantial iron oxide copper gold ("IOCG") target, with depth to top of about 600m. The Maslins IOCG target is enhanced by IVR's initial interpretation from the AusLAMP data of a similar underlying conductivity vector to Olympic Dam.

The anticipated government infill MT survey in the Carrapateena region as shown on Figure 7 commenced late March in the northern Carrapateena area with the Maslins area yet to be surveyed. Investigator is contributing six additional stations to the survey, for a small cost, to ensure the interpreted conductivity vector at Maslins is optimally defined.

Figure 7: Southern Olympic Dam IOCG belt - showing the position of the Maslins tenements & IOCG target in relation to the interpreted MT conductivity corridor and upward vector similar to the one at Olympic Dam



CARTARPO COBALT/COPPER/REE PROSPECT (EL5999 - IVR 100%)

The 100% held Cartarpo Tenement located 175km north of Adelaide (Figure 8), was selected to cover the mid-1800s Cartarpo copper-cobalt mine. As previously announced (Investigator ASX Release: 22 January 2018), gossans and vein material from historic mine workings on narrow veins returned values of up to 1.78% cobalt and 1.1% combined rare earth elements ('REE') including heavy REEs, along with copper up to 0.5%, nickel up to 0.4% and lithium up to 0.3%.

The Cartarpo prospect is interpreted as connected to the historic Burra copper mines by a northwest-trending structure. The Burra area is also underlain by a large AusLAMP MT anomaly.

Investigator recently undertook soil geochemical sampling on traverses along prospective extensions to the workings to trial the technique as an exploration tool for the wider tenement. The samples have been submitted for assay. Further mapping and geochemical surveys are planned in the June 2018 quarter.



Figure 8: Regional geology plan showing the IVR tenement in blue containing the Cartarpo copper cobalt mine. Other mines (black cross-picks), cobalt prospects (orange cross-picks), prospective structures (red lines) and stratigraphic (green lines) trends are also shown for the Burra district.

WIAWERA COPPER/GOLD PROSPECTS, Olary District (EL5938; IVR 100%)

Investigator applied for the Wiawera tenement to cover its' poorly-recorded and undrilled historic copper-gold workings described in open file data. During 1990-1, an explorer assayed up to 32g/t gold, plus strong copper and silver in grab samples from the Junction Creek group of workings (Figure 9), with no records of subsequent effective exploration.

Past government mapping and new magnetic data flown by an iron ore explorer in 2008 and recently released by government, show an association with northeast-trending intrusive dykes (Figure 9). Some dykes are dated at 440 million years, a prospective age for eastern Australian copper and gold deposits.

A key feature of the Wiawera tenement is the large Treloars magnetic anomaly situated at the intersection of the northeast dyke corridor and northwest MacDonald Fault. The anomaly is unique in the regional magnetic fabric, has an overlying occurrence of malachite (copper carbonate) and has potential to be a hydrothermal metal system.

Investigator is progressing negotiations with the local Native Title Claimants to establish a Native Title Mining Agreement to enable evaluation of the exploration potential to proceed.

Figure 9: Regional magnetics¹ plan showing government-recorded historic workings in yellow; Company- recorded workings in red including maximum assays for individual metals in grab samples² at the Junction Creek workings; the Treloars malachite occurrence and associated magnetic target and interpreted structural elements as dashed lines – faults in blue; intermediate, mafic and lamprophyric dykes in green.



¹ Magnetics base is 1VD merged image compiled from a SAEI B2 survey and a TEISA E1 1999 survey, both flown at 400m spacing; plus a 2008 detailed survey flown by Helix on 100m line spacing (SAMREF ENV11768).

²Aztec Mining (SAMREF ENV8325).

NEW APPLICATIONS AND OPPORTUNITIES

During the quarter the Plumbago tenement was applied for on the basis of its' geological similarity to Wiawera.

The Algebuckina application (Figure 10) was submitted over gravity features beyond the most northern recorded copper workings in the Peak and Denison Ranges, ahead of release of the AusLAMP MT data.

Prior tenement applications Boondina and Cooper East-Penong are awaiting Ministerial approval. They are seen to add to the potential for mafic-hosted nickel-cobalt mineralisation in the adjacent 100% held Cooper Hill (EL6034) tenement.



Figure 10: Plan showing IVR's current tenements including applications (see Table 1)

Table 1 and Figure 10 provide the location and status of the current Investigator tenements.

Table 1: Summary of Investigator Resources Limited tenement changes during the March 2018 Quarter.

Tenement Number	Tenement Name	Registered Holder	Note
Project: East Eyre Peninsula (IVR 100%)			
5406	Botenella Gate	GRL	Current
5857	Barna Hill	GRL	Current
5932	Mt Nott	GRL	Current
5908	Kimba	IVR	Current
5872	Cunyarie	GRL	Current
Project: Peterlumbo (IVR 100%)			
5368	Peterlumbo	Sunthe	Current
Project: Uno/Morgans (IVR 100%)			
5845	Uno Range	GRL	Current
5933	Morgans	GRL	Current
5913	Harris Bluff	GRL	Current
Project: West Eyre Peninsula (IVR 100%)			
5512	Googs Lake	IVR	Current
Project: Thurgla JV (GRL 75% / PRL 25%)			
5419	Thurlga	GRL 75% / PRL 25%	Current
Project: Maslins (IVR 100%)			
5704 *	Yalymboo-Oakden Hills	GRL	Current, partial relinquishment approved during quarter, -187km ²
5705	Whittata	GRL	Current
5706 *	Yudnapinna	GRL	Current, partial relinquishment approved during quarter, -184km ²
5738 *	Birthday	GRL	Current, partial relinquishment approved during quarter, -32km ²
Project: Curnamona (IVR 100%)			
5938	Wiawera	GRL	Current, previously named Maldorky
Project: Adelaide Geosyncline (IVR 100%)			
5999	Cartarpo	GRL	Current
Project: Western Eyre (IVR 100%)			
6034	Cooper Hill	GRL	Current
6047	Yantanabie	GRL	Current
6048	West Pennas	GRL	Current
Application (IVR 100%)			
2018/008	Boondina	GRL	Application, pending Ministerial approval
2018/009	Cooper East Penong	GRL	Application, pending Ministerial approval
2018/020	Algebuckina	GRL	Application, pending Ministerial approval
2018/035	Plumbago	GRL	Application, pending Ministerial approval

Notes:

IVR - Investigator Resources Ltd.
 Sunthe - Sunthe Uranium Pty Ltd, a wholly owned subsidiary of Investigator Resources Ltd.
 GRL - Gawler Resources Pty Ltd, a wholly owned subsidiary of Investigator Resources Ltd.
 PRL - Peninsula Resources Ltd, a wholly owned subsidiary of Andromeda Metals Ltd.

* As part of the tenement renewal process after the initial two-years, IVR have agreed a reduction in tenement size by *circa* 27%.

Expenditure for the March 2018 quarter comprised A\$956,000 spent on exploration and A\$363,000 spent on corporate and administration costs. The Company held A\$3.12M in cash at the end of the March 2018 quarter.

During the quarter, 1,690,000 unlisted employee options expired unexercised.

ABOUT INVESTIGATOR RESOURCES

Investigator Resources Limited (ASX code: IVR) is a metals explorer with a focus around its Paris Silver Project and flow-on discovery opportunities in South Australia.

The Company announced a revised estimation for the Paris Silver Project Mineral Resource for its 2011 Paris silver discovery to 9.3Mt @ 139g/t silver and 0.6% lead, comprising 42Moz of contained silver and 55kt of contained lead, at a 50g/t silver cut-off. The resource has been categorised with an Indicated Resource estimate of 4.3Mt @ 163g/t silver and 0.6% lead for 23Moz contained silver and 26kt contained lead, and an Inferred Resource: 5.0Mt @ 119g/t silver and 0.6% lead for 19Moz contained silver and 29kt contained lead.

The Company is progressing the development of the Paris Silver Project with the preparation of a pre-feasibility study.

CAPITAL STRUCTURE

As at 31 March 2018:

- Shares on issue 739,972,032.
- Listed Options 160,660,226.
- Unlisted Options 7,915,000.

The top 20 shareholders at 31 March 2018 held 32.27% of the shares on issue.

Total shareholders: 3,367.

SUBSTANTIAL SHAREHOLDERS

As at 31 March 2018:

- CITIC Australia Pty Ltd 9.07%.
- Old Mutual 6.32%.
- Laurium Investments 5.02%

ASX listing code: IVR

DIRECTORS AND MANAGEMENT

Dr David Ransom (Non Exec. Chairman) Mr Bruce Foy (Non Exec. Director) Mr Kevin Wilson (Non Exec. Director)

Mr John Anderson (Managing Director) Mr Angelo Gaudio (CFO and Company Secretary)

COMPETENT PERSON COMPLIANCE STATEMENT

The information in this announcement relating to exploration results is based on information compiled by Mr. John Anderson who is a full time employee of the company. Mr. Anderson is a member of the Australasian Institute of Mining and Metallurgy. Mr. Anderson has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Anderson consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The information in this announcement that relates to Mineral Resources Estimates at the Paris Silver Project is extracted from the report entitled "Significant 26% upgrade for Paris Silver Resource to 42Moz contained silver" dated 19 April 2017 and is available to view on the Company website <u>www.investres.com.au</u>. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

FOR FURTHER INFORMATION:

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